

# State of Health Report



## Asthma

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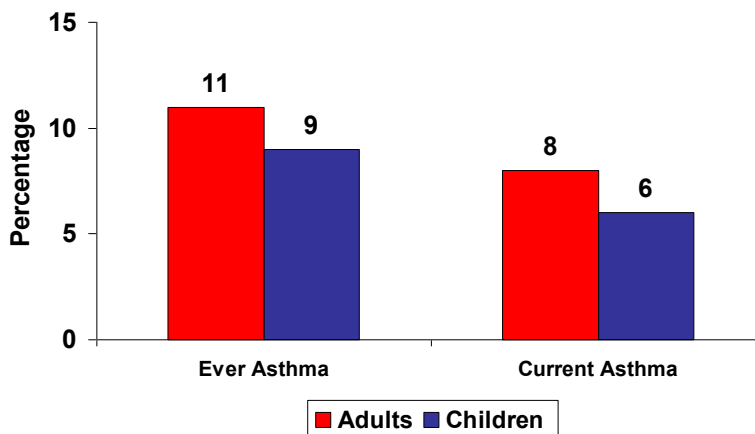
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## Asthma

### Asthma in North Dakota

Asthma is a chronic respiratory condition that affects both adults and children. The disease is associated with thickening of the walls of the airways, increased mucous production and spasm of airway muscles resulting in narrowing of the passages that carry the air. In 2007, 11 percent of adults in North Dakota reported ever being told they had asthma, and 8 percent reported having asthma currently. For children younger than 18, adult family members reported 9 percent had ever been diagnosed with asthma and 6 percent had asthma currently. (See figure below.)

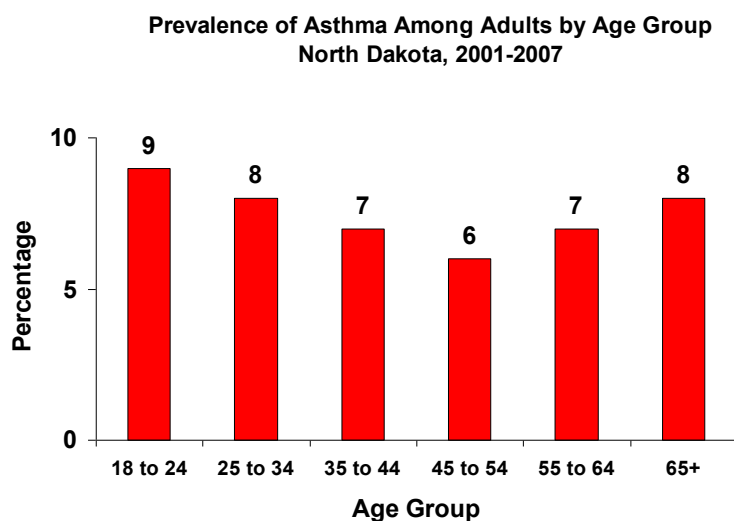
Prevalence of Asthma Among Adults and Children  
North Dakota, 2007



## What Does the Data Show?

### Current Asthma Prevalence Among Adults

Between 2001 and 2007, the prevalence of asthma among adults was highest among those ages 18 to 24 (9%) and lowest among those ages 45 to 54 (6%). (See figure below.) Females were significantly more likely to report currently having asthma than males (8% versus 6%). Asthma prevalence appeared to be slightly higher among American Indians (9%) than among whites (7%), but the difference was not statistically significant. Adults in households with an income less than \$25,000 and education attainment less than high school were both significantly associated with an increased risk for asthma.



### Time Trends and Geographic Trends Among Adults

No trend in the annual incidence of asthma was apparent between 2001 and 2007. No substantial difference in prevalence was detected for those who live in urban versus rural areas of the state.

### Impact on the Health of Adults

Compared to adults without asthma, adults with asthma were significantly more likely to report having a limitation in their activity due to a physical, mental or emotional problem (32% versus 13%) and significantly more likely to report that their general health was fair or poor (25% versus 11%).

**Impact on the Activity of Adults**

Compared to adults without asthma, adults with asthma were significantly more likely to have eight or more days during the past 30 days when their physical health was not good (21% versus 9%) or to have had eight or more days in the past 30 days when their mental or emotional health was not good (16% versus 9%). They were also significantly more likely to have had eight or more days in the past 30 days when physical, mental or emotional illness kept them from their usual activities (13% versus 5%) and significantly more likely to have missed six or more days of work in the past year due to physical illness than people without asthma (18% versus 10%).

**Asthma Prevalence Among Children**

According to adult household respondents, between 2004 and 2007 (the years for which data is available), the prevalence of asthma was significantly lower among children ages 5 and younger than among older children (5% versus 8%). The prevalence of asthma appeared to be slightly higher among American Indian children than among white children (8% versus 6%), but the difference was not statistically significant. The prevalence of asthma was similar among male and female children (7% versus 6%) and among children in households with annual incomes below and above \$25,000 (7% versus 6%).

**Time Trends and Geographic Trends in Childhood Asthma Prevalence**

Between 2004 and 2007, no trend in the annual prevalence of current asthma was apparent among children, and no difference in childhood asthma prevalence was seen between urban and rural areas of the state.

**Impact on Health**

Sixteen percent of children with asthma were reported to have symptoms more than two days per week, and 2 percent were reported to have symptoms continually. Similarly, 15 percent of children with current asthma had asthma symptoms that made it difficult for them to stay asleep three or more nights per week.

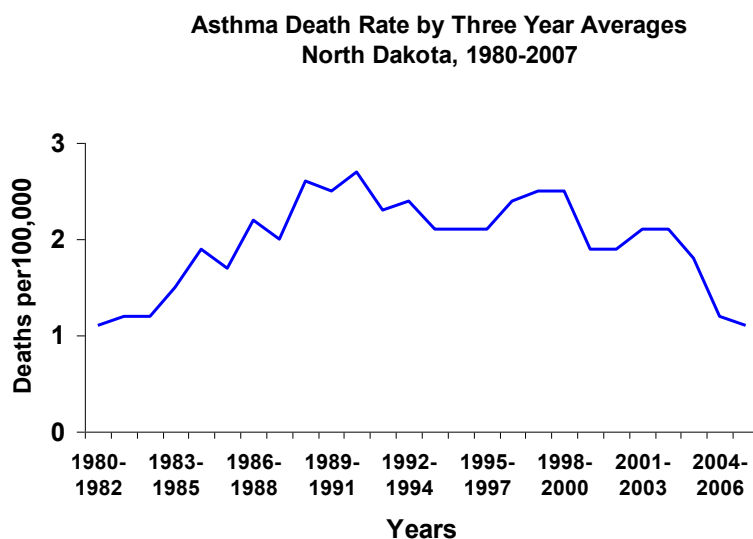
**Impact on Activities**

Twelve percent of children with current asthma missed one or days of school during the preceding 30 days because of asthma symptoms, and 21 percent were unable to participate in their usual activities one or days during the past 30 due to asthma symptoms.

### Deaths Due to Asthma Among Adults and Children

In 2006, six deaths due to asthma were reported (0.9 deaths per 100,000 population), which was the lowest number of asthma deaths reported in North Dakota since 1985. Between 1981 and 1990, deaths due to asthma increased from four deaths (0.6 deaths per 100,000 population) to 21 deaths (3.3 deaths per 100,000 population). Rates slowly declined thereafter. (See figure below.) This pattern of deaths paralleled a similar curve in the United States as a whole. The reasons for these observed changes in death rates is not known.

(Note: Deaths prior to 1999 have been adjusted to account for change in coding from ICD-9 to ICD-10)



### Interpreting the Data

Asthma is a common and potentially deadly chronic disease affecting both children and adults. It is associated with large impacts on activity, productivity and health status. While deaths due to asthma have changed remarkably over the past three decades, at least during recent years the prevalence of asthma in both adults and children has remained relatively stable. Although some populations have somewhat higher rates of asthma than others (e.g., older children and young adults, women), all segments of the population appear to be affected.

## Links to Data Tables

### **Asthma Prevalence**

[Prevalence of Ever Asthma Among Adults, by Year](#)

[Prevalence of Current Asthma Among Adults, by Year](#)

[Prevalence of Adult Asthma by Demographic Group, 2006](#)

[Prevalence of Ever Asthma Among Children](#)

[Prevalence of Current Asthma Among Children, by Year, 2004-2007](#)

### **Treatment**

[Use of Steroids Among Children to Control Asthma, by Year](#)

[Use of Asthma Preventive Medication Among Children, by Year](#)

### **Child Asthma Symptoms**

[Asthma Symptoms Among Children, by Year](#)

[Nighttime Asthma Symptoms Among Children, by Year](#)

[School Missed](#)

[Activity Limitation Among Children](#)

**The State of Health of North Dakotans document describes the health of North Dakotans by providing data about the issues that cause disease or create health risk. In addition, for some of the topics covered, information has been added describing the impact of the issue on human lives, solutions that work and current programs used in North Dakota to address the issue.**

**The document is and will remain under continuous development. Additional topics will be added as they are completed and data from existing topics updated as new information becomes available. The link to the left provides active web links to the topics currently available and lists other topics planned for the future.**

[More Health Reports](#)



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